

REDEFINITION OF CEDRELA OAXACENSIS
C. DC. & ROSE

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During the course of preparation of "A Revision of *Cedrela* (Meliaceae)" (Fieldiana: Bot. 29: 295-341. 1960) difficulties in defining inadequate collections of Spanish cedar from Mexico and Central America led me to place many species in synonymy. Among these, I recognized a grouping of specimens with (for the genus) exceptionally large capsules under the name *Cedrela oaxacensis* C. DC. & Rose. Subsequently, Dr. Faustino Miranda kindly showed me his well-collected specimens with very good notes which indicated that the ecological disparity among the large-capsuled cedrelas was, indeed, solidly based on the confusion of at least two species. A large-fruited species in higher elevations from Chiapas to Panama bears several capsules in a hanging inflorescence. Another species, bearing single erect capsules, grows in less well watered habitats primarily in the semi-deciduous Pacific slope forests from Mexico southward. In Flora of Panama, VI. Family 92, Meliaceae (Ann. Mo. Bot. Gard. 52: 60 seq. 1965), I partially untangled this skein of my own making by recognizing *C. tonduzii* C. DC. as the upland, moist-forest species with large capsules in hanging inflorescences. I included in this *C. salvadorensis* Standl. and I have no evidence at the present time which leads me to change this opinion.

At the time that I visited the type locality of *C. oaxacensis* (Monte Alban, Oaxaca) in 1957 in search of material identifiable with Pringle's collection 4802, the arborescent vegetation was only beginning to recover from a severe clearing which had accompanied archaeological work at this important pre-Conquest site. Unable to find *Cedrela* in the area to corroborate the original collection, I mistakenly concluded that the capsules accompanying the Pringle collection were anomalous. I have since made three collections of *Cedrela oaxacensis* in the Oaxaca Valley (one at Monte Alban in

sprout clumps from original stumps on the site) which prove that the foliage and capsules of *Pringle* 4802 are indeed related. I am now redefining *C. oaxacensis* to exclude all of the large-capsuled collections which I had previously placed there.

Cedrela oaxacensis C. DC. & Rose. Contrib. U. S. Nat. Herb. 5: 190. 1899.

Lectotype collection: *C. G. Pringle* 4802. Monte Alban, Oaxaca. Aug., 1894. (US, B, F, MO, NY, PH).

C. discolor Blake. Proc. Biol. Soc. Wash. 33: 108. 1920. Type collection: *Palmer* 184. San Ramon, Durango. Tree to 10 m tall. Branchlets thick, lenticels small, scattered. Leaves with, usually, 7 pairs of leaflets to 19 cm long, 7 cm wide, ovate, base rounded to obtuse to abruptly truncate, rarely slightly acute, apex shortly acuminate, acute, blade markedly pubescent beneath; rachis and petiolules frequently pubescent, petiolules 4 mm long or less. Inflorescence moderately open, to ca. 25 cm long in flower, to ca. 30 cm long in fruit, shorter than the leaves, puberulent; bracts early deciduous; flowers pinkish, calyx to 2.5 mm deep, 5-lobed, lobes to 1.75 mm wide at base, puberulent, petals 5.0 to 6.0 mm long, lanate without, puberulent within, pinkish, but fading toward the thinner margins; filaments fleshy, broad at point of attachment and tapering gradually upward to the anther, connective broad, apiculum short, obtuse; anthers ca. 1.0 mm long; ovary ovoid, glabrous, style to 2.0 mm long, thick, tapering very gradually to the thick, capitate stigma. Fruit 3.5 to 4.0 cm long, valves thin, less than 1.0 mm thick, outer surface lenticellate, outer layer peeling away from the inner as the capsule opens; central column with wings extending only to the margin of a distinct rostrum 6.0 to 8.0 mm in diameter, the scars from the seed attachments 5.0 to 8.0 mm long immediately beneath the rostrum between the wings.

Trees of hillslopes in the Oaxaca Valley, north and west as far as Durango and probably to the southeast along the Pacific slopes.

Isotype collections of *Pringle* 4802 and *Palmer* 184 were recently reexamined in the U. S. National Herbarium, confirming their conspecificity. Unfortunately, other material was not then available and I was unable to place other collections previously cited as *C. oaxacensis*. However, I have made the following collections in Oaxaca: Rd. to Guelatao ca. 5 km above intersection with Pan American Highway. Stream margin. *Smith & Schoenwetter* 4346. Aug. 6, 1966.; Monte Alban, on side of mound. *Smith & Kitchen* 4823. July 2, 1968.; Barranca above molino. San Gabriel Etla. *Smith & S. Kitchen* 4825. July 4, 1968.

I leave unresolved the disposition of *C. saxatilis* Rose and *C. poblensis* Miranda. I have already indicated my previous placement of *C. salvadorensis* Standl. with *C. tonduzii*. I believe that Miranda felt that *C. poblensis* is a synonym of *C. salvadorensis* (annotations on specimens in U. S. National Herbarium). Neither the specimens nor the localities clearly indicate the proper place of this species. Collections made on the Pacific slope are more apt to be the short tree with the single capsules. However, with increase in elevation, many areas support humid forests in which the larger, multi-capsuled species might be found. Additional field collecting with careful documentation is needed to delimit the ranges of the large-capsuled species. I was unable to see a specimen of *Pringle* 11806 (type collection of *C. saxatilis*) and I make no disposition, although I suspect that it belongs with *C. oaxacensis*.

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